



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/755,536	01/12/2004	David A. Pattillo	09046.0001-00000	1331

22852 7590 11/14/2006

FINNEGAN, HENDERSON, FARABOW, GARRETT & DUNNER
LLP
901 NEW YORK AVENUE, NW
WASHINGTON, DC 20001-4413

EXAMINER

NGUYEN, HUONG Q

ART UNIT	PAPER NUMBER
----------	--------------

3736

DATE MAILED: 11/14/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/755,536

Applicant(s)

PATTILLO ET AL.

Examiner

Helen Nguyen

Art Unit

3736

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 01 September 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-27 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-27 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 12 January 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

Art Unit: 3736

DETAILED ACTION

1. This Office Action is responsive to the amendment filed 9/01/2006. Claims 6, 15, and 24 are amended. **Claims 1-27** remain pending.

Claim Objections

2. **Claim 10** is objected to because of the following informalities: Claim 10 is incorrectly labeled as “previously amended.”

Appropriate correction is required.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

4. **Claims 6, 15, and 24** are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. The amendment to said claims recites setting the cushioning requirement as high “if the average pressure of the heel of the foot is not greater than the high threshold value.” ¶44 of the specification states that if the average heel pressure is greater than a threshold i, high cushioning is required. There seems to be no disclosure as to setting said cushioning requirement as high if the average heel pressure is not greater than said threshold value. Failure to disclose said cushioning

Art Unit: 3736

requirement in applicant's disclosure constitutes new matter within said claim amendments and must be cancelled in response to this Office Action.

5. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

6. **Claims 6, 15, and 24** are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. In particular, it is not understood what is meant by the amendment to said claims reciting "if the average pressure of the heel of the foot is not greater than the high threshold value" for setting the cushioning requirement as high. ¶44 of the specification states that if the average heel pressure is greater than a threshold i, high cushioning is required. There is no disclosure as to setting said cushioning requirement as high if the average heel pressure is not greater than said threshold value, as explained above. Also, if it is true that cushioning requirement should be set at high even if the average heel pressure is not greater than the high threshold value, what would be the purpose of having a step of determining if the average heel pressure is greater than the high threshold if the cushioning requirement will be high regardless.

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the

Art Unit: 3736

invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. **Claims 1-5, 9-14, 18-23, and 27** are rejected under 35 U.S.C. 103(a) as being unpatentable over Asphahani et al (US Pat No. 6836744).

9. In regard to **Claims 1-4, 10-13, and 19-22**, Asphahani et al disclose a method, machine-readable storage medium, and system for analyzing an individual's foot during stride comprising: receiving a plurality of pressure readings wherein the pressure readings comprise a pressure value through “plantar pressure collection unit” (30), best seen in Figure 1 and 7, wherein because the analysis is of the motion of gate, data comprising position and time is also available; determining a cushioning requirement and thus a level of cushioning based on the plurality of pressure readings (abst); and determining a pronation requirement and thus a degree of pronation based on the plurality of pressure readings (abst).

10. In regards to **Claim 5, 14, and 23**, Asphahani et al disclose determining a recommended shoe based on the level of cushioning and the degree of pronation (Col.3, line 3).

11. In regards to **Claims 9, 18, and 27**, Asphahani et al disclose analyzing a speed of the foot, such as through the arch (Col.3, line 11-12); analyzing a pressure on the inside of the foot and of the foot through the arch, best seen in Figure 4 and 7 (Col.5, line 14-18); analyzing the gait of the foot (abst); and calculating the pronation requirement based on the analyzing steps (Col.5, line 24-33).

Art Unit: 3736

12. **Claims 6-7, 15-16, and 24-25** are rejected under 35 U.S.C. 103(a) as being unpatentable over Asphahani et al in view of Demon (US Pat No. 5813142), further in view of Gray et al (US Pat No. 6122846), even further in view of Hoppenstein (US Pat No. 5564202).

13. In regards to **Claims 6, 15, and 24**, Asphahani et al disclose determining a cushioning requirement comprising determining an average pressure which includes a forefoot and a heel of the foot, as shown in Figure 4 and 7 (Col.5, line 14-18). However, Asphahani et al do not disclose if the average pressure of the heel of the foot is greater than a high threshold value, setting the cushioning requirement as high; and if the average pressure of the forefoot is less than a low threshold value, setting the cushioning requirement as low, and, if not less than the low threshold value, setting the cushioning requirement as medium.

14. Demon discloses comparing applied pressure applied to different foot areas, such as the heel and the forefoot (Z1-5) best seen in Figure 1 (Col.3, line 1-14) with threshold pressures to vary a cushion requirement (Col.5, line 24-39) to suit the specific needs of the user (Col.2, line 8-11). Specifically, Demon teaches when a pressure, such as that in a heel is greater than the high threshold pressure, cushion is increased (Col.5, line 24-39).

15. Gray et al disclose providing an indication to a wearer when forces on the foot do not meet a low threshold value (abst) to provide important information pertaining to the low-end spectrum of desired pressure.

16. Hoppenstein discloses setting a shoe cushioning requirement (sole and insert) as high, medium or low in response to different pressure requirements (Col.4, line 39-42).

Art Unit: 3736

17. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the invention of Asphahani et al to incorporate setting the cushion requirement based upon a comparison of pressures from certain areas of the foot, such as the heel, with high threshold values, as taught by Demon, to provide a more accurate and specific level of cushioning for the user, wherein if the pressure of heel of a foot is greater than the high threshold value, as taught by Demon, the cushion requirement setting can be increased; it would also have been obvious to include a comparison of foot pressure from certain areas such as the forefoot with a low threshold value, as taught by Gray et al, and well as to use indicator levels such as high, medium, and low, to categorize said cushioning requirement of Asphahani et al, as taught by Hoppenstein, as an effective method to quantify such. Therefore, in combination, Asphahani et al as modified by Demon, Gray et al, and Hoppenstein disclose determining an average pressure of the forefoot of the foot; determining an average pressure of the heel of the foot; and thereafter, comparing said average pressure with threshold values and assigning certain levels of cushioning from the result such as, if the average pressure of the heel of the foot is greater than a high threshold value, setting the cushioning requirement as high, as a well as if the average pressure of the heel of the foot is not greater than the high threshold, if the average pressure of the forefoot is less than a low threshold value, setting the cushioning requirement as low, and, if the average pressure of the forefoot is not less than the low threshold value, setting the cushioning requirement as medium.

Art Unit: 3736

18. In regards to **Claims 7, 16, and 25**, Asphahani et al disclose determining a cushion requirement and a speed of the foot, such that it would have been obvious to analyze the speed of a particular portion of the foot such as the forefoot, and adjusting the cushioning requirement based on the speed of the forefoot (Col.3, line 11-12).

19. **Claims 8, 17, and 26** are rejected under 35 U.S.C. 103(a) as being unpatentable over Asphahani et al in view of Demon, further in view of Gray et al, further in view of Hoppenstein, even further in view of Potter et al (US Pat No. 6430843).

20. Asphahani et al in view of Demon, Gray et al, and Hoppenstein disclose adjusting the cushioning requirement as explained above but do not disclose increasing the cushioning requirement if the speed of the forefoot is greater than a forefoot speed threshold value. Potter et al disclose that when a speed of a foot is increased, increased cushioning is desired from the resulting higher impact force (Col.11, line 53-56).

21. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to adjust the cushioning requirement of Asphahani et al as modified by Demon, Gray et al, and Hoppenstein, relative to speed of the forefoot, as explained above, through a comparison with a threshold value, as taught by Demon, such that if the speed of a portion of the foot such as the forefoot is greater than a threshold value, cushioning is increased, as taught by Potter et al.

Art Unit: 3736

Response to Arguments

22. Applicant's arguments with respect to **Claims 1-27** have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

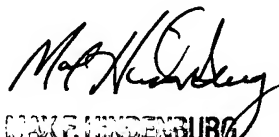
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Helen Nguyen whose telephone number is 571-272-8340. The examiner can normally be reached on Monday - Friday, 8 am - 5 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Max Hindenburg can be reached on 571-272-4726. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

HQN
11/13/2006

2EW


MAX HINDENBURG
COMMERCIAL PATENT EXAMINER
TECHNOLOGY CENTER 3700